Received by OCD: 4/19/2022 2:20:24 PM Form C-141 State of New Mexico

Oil Conservation Division

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Incident ID	nAPP2124632147	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🖌 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🖌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🖌 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🖌 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🖌 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🖌 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🖌 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🖌 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🖌 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🖌 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🖌 No
Did the release impact areas not on an exploration, development, production, or storage site?	🖌 Yes 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ✓ Field data
- Data table of soil contaminant concentration data
- \checkmark Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- ✓ Topographic/Aerial maps
- ✓ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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regulations all operators a public health or the enviro failed to adequately inves addition, OCD acceptance and/or regulations. Printed Name: <u>Conn</u>		ifications and perform co OCD does not relieve the eat to groundwater, surfa f responsibility for comp. 	prrective actions for rele e operator of liability sho ce water, human health liance with any other feo	ases which may endanger ould their operations have or the environment. In			
OCD Only							
Received by:		Date:					

Received by OCD: 4/19/2022 2:20:24 PM Form C-141 State of New Mexico

Incident ID	nAPP2124632147
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Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

Detailed description of proposed remediation technique

Scaled sitemap with GPS coordinates showing delineation points

Estimated volume of material to be remediated

Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC

Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. \checkmark Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Connor Walker Title: Sr. Engineer Signature: Date: email: cwalker@mewbourne.com Telephone: (806)202-5281 OCD Only Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

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Remediation Summary, Variance & Deferral Request

Mewbourne Oil Company Red Hills Recycle Pond Facility

Lea County, New Mexico Unit Letter "J", Section 16, Township 26 South, Range 32 East Latitude 32.0397980 North, Longitude 103.675828 West NMOCD Reference No. nAPP2124632147

Prepared By:

Etech Environmental & Safety Solutions, Inc. 2507 79th Street, Unit A Lubbock, Texas 79423

n J. Arguijo

Joel . Lowry

Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Hobbs • Lafayette

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Figure 2 - Aerial Proximity Map
Figure 3A - Site & Sample Location Map (Delineation)
Figure 3B - Site & Sample Location Map (Excavation)

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APPENDICES

- Appendix A Depth to Groundwater Information
- Appendix B Field Data & Soil Profile Logs
- Appendix C Photographic Log
- Appendix D Multimedia Exposure Assessment Model (MULTIMED) Excavation
- Appendix E Multimedia Exposure Assessment Model (MULTIMED) Deferral Area
- Appendix F Laboratory Analytical Reports
- Appendix G Regulatory Correspondence

1.0 **PROJECT INFORMATION**

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Remediation Summary, Variance & Deferral Request* for the release site known as the Red Hills Recycle Pond Facility (henceforth, "Red Hills Recycle"). Details of the release are summarized below:

atitude:	32.03	97980	Longitude:		-103.675828				
		Provide	d GPS are in WGS84 form	nat.					
ite Name:	Red Hills Rec	ycle Pond Facility	Site Type:	Water T	reatment Facility				
ate Release Disc	overed:	8/30/2021	API # (if applied	cable):	N/A				
Unit Letter	Section	Township	Range	County	1				
"J"	16	265	32E	Lea	1				
Irface Owner:	State F	ederal Tribal	Private (National Notation of Description of Descri						
Crude Oil	Volume	Released (bbls)		Volume Recover	red (bbls)				
X Produced Wa	iter Volume	Released (bbls)	Unknown	Volume Recover	Volume Recovered (bbls) 1,420				
		ncentration of total of the produced water		X Yes No N/A					
Condensate	Volume	Released (bbls)		Volume Recover	Volume Recovered (bbls)				
Natural Gas	Volume	Released (Mcf)		Volume Recover	red (Mcf)				
Other (descri	be) Volume	Weight Released		Volume/Weight F	Recovered				
Cause of Release The tanks overflo			nt, and released pro	oduced water both on	and off the location.				
X The source of	the release has	been stopped.							
		secured to protect hun	nan health and the er	vironment.					
		_		osorbent pad, or other	containment devices				
A Release mater				1,					

Previously submitted portions of the NMOCD Form C-141 are available in the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a halfmile radius of the Red Hills Recycle release site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	215'	
Did the release impact groundwater or surface water?	Yes X	K No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X	K No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark?	Yes X	K No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	Yes X	K No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Yes X	K No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X	K No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes X	K No
Are the lateral extents of the release within 300 feet of a wetland?	Yes X	K No
Are the lateral extents of the release overlying a subsurface mine?	Yes X	K No
Are the lateral extents of the release overlying an unstable area such as karst geology?	X Yes	No
Are the lateral extents of the release within a 100-year floodplain?	Yes X	K No
Did the release impact areas not on an exploration, development, production or storage site?	X Yes	No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles, topographic maps, NMOSE and USGS databases, and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Red Hills Recycle release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
215'	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	N/A	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 INITIAL SITE ASSESSMENT

On September 17 and 18, 2021, an initial site assessment was conducted by a third-party environmental contractor that is no longer affiliated with the site. During the initial site assessment, a series of eight (8) soil bores and/or test trenches (SP1 through SP8) were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, five (5) soil bores and/or test trenches (H1 through H5) were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the soil bores/test trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit.

Based on field test data, the vertical extent of chloride contamination was adequately defined and ranged from approximately two (2) feet below ground surface (bgs) in the area characterized by sample point SP1 to eight (8) feet bgs in the area characterized by sample point SP3. However, additional delineation was required to determine the horizontal extent of chloride contamination, as well as the horizontal and vertical extent of BTEX and TPH contamination.

Field data is provided in Appendix B. General photographs of the site are provided in Appendix C.

5.0 **REMEDIATION ACTIVITIES SUMMARY**

On November 9, 2021, Mewbourne contracted Etech to assume remediation activities for the release.

On February 8, 2022, Etech commenced remediation activities at the release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated to the extent practicable and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the vertical and horizontal extent of impacted soil and to guide the excavation. The sidewalls of the excavation were advanced to the extent practicable or until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards. The excavation was advanced vertically to approximately four (4) feet bgs.

On February 9, 2022, Etech collected five (5) confirmation soil samples (NW1, NW2, NW3, NW4, and EW1) from the sidewalls of the excavated area. The soil samples were submitted to a certified, commercial laboratory (henceforth, "the laboratory") for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory method detection limit (MDL). Chloride concentrations ranged from 112 mg/kg in soil sample EW1 to 288 mg/kg in soil sample NW1.

In addition, Etech advanced three (3) test trenches (FS1, FS2, and FS4) in the floor of the excavated area to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a Hach Quantab ® chloride test kit and/or the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses. Based on field observations and field test data, three (3) delineation soil samples (FS1 @ 12', FS2 @ 13', and FS4 @ 4') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 48.0 mg/kg in soil sample FS2 @ 13' to 336 mg/kg in soil sample FS1 @ 12'. Based on these laboratory analytical results, the vertical extent of impacted soil was adequately defined in the areas characterized by test trenches FS1, FS2, and FS4.

On February 10, 2022, Etech collected two (2) confirmation soil samples (SW1 and SW2) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results

indicated BTEX and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX concentrations were also below the laboratory MDL. TPH concentrations ranged from less than the laboratory MDL in soil sample SW2 to 264 mg/kg in soil sample SW1. Chloride concentrations were 80.0 mg/kg in soil sample SW1 and 32.0 mg/kg in soil sample SW2.

On February 17, 2022, Etech collected 20 confirmation soil samples (NW5, NW6, NW7, NW8, NW9, NW10, NW11, NW12, NW13, SW3, SW4, SW5, SW6, SW7, SW8, SW9, SW10, SW11, SW12, and SW13) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil sample SW6 to 272 mg/kg in soil sample SW11.

On February 24, 2022, Etech advanced six (6) test trenches (SP1 through SP6) within the release margins in an effort to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. Based on field observations and field test data, a total of 10 delineation soil samples (SP1 @ Surf., SP1 @ 2', SP2 @ Surf., SP2 @ 20', SP3 @ Surf., SP3 @ 14', SP4 @ Surf., SP4 @ 14', SP6 @ Surf., and SP6 @ 2') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX concentrations were also below the laboratory MDL. Chloride concentrations ranged from 32.0 mg/kg in soil sample SP3 @ 14' to 2,000 mg/kg in soil sample SP1 @ Surf. Based on these laboratory analytical results, the vertical extent of impacted soil was adequately defined in the areas characterized by test trenches SP1, SP3, SP4, SP5, and SP6. However, additional vertical delineation was required in the area characterized by test trench SP2.

On February 25, 2022, Etech advanced 10 hand-augered soil bores (NH1, NH2, NH3, EH1, EH2, SH1, SH2, SH3, WH1, and WH2) at the inferred edges of the affected area in an effort to further investigate the horizontal extent of impacted soil. During the advancement of the hand-augered soil bores, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. Based on field observations and field test data, a total of 20 delineation soil samples (NH1 @ Surf., NH1 @ 1', NH2 @ Surf., NH2 @ 1', NH3 @ Surf., NH3 @ 1', EH1 @ 1', EH2 @ Surf., EH2 @ 1', SH1 @ Surf., SH1 @ 1', SH2 @ Surf., SH2 @ 1', SH3 @ Surf., SH3 @ 1', WH1 @ Surf., WH1 @ 1', WH2 @ Surf., and WH2 @ 1') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentration of 13.7 mg/kg. Chloride concentrations ranged from 32.0 mg/kg in soil samples NH1 @ Surf., EH1 @ 1', and SH3 @ 1' to 336 mg/kg in soil sample SH1 @ Surf. Based on these laboratory analytical results, the horizontal extent of impacted soil was adequately defined.

On March 1, 2022, Etech further advanced test trench SP2 in an effort to determine the vertical extent of chloride contamination in the area. During the advancement of the test trench, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit. Based on field observations and field test data, one (1) delineation soil sample (SP2 @ 21') was submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated the chloride concentration was 96.0 mg/kg and below the NMOCD Closure Criteria and NMOCD Reclamation Standard. Based on these laboratory analytical results, the vertical extent of chloride contamination was adequately defined.

On March 9, 2022, the excavation was further advanced in the area characterized by soil sample SW1. Etech collected eight (8) confirmation soil samples (NW14, NW15, NW16, NW17, NW18, SW1-A, SW14, and SW15) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and

NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil sample NW14 to 256 mg/kg in soil sample SW14.

On March 10, 2022, Etech collected one (1) confirmation soil sample (SW16) from the sidewall of the excavated area. The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard. BTEX and TPH concentrations were also below the applicable laboratory MDL. The chloride concentration was 64.0 mg/kg.

On March 15, 2022, Etech collected eight (8) confirmation soil samples (EW2, EW3, EW4, EW5, SW17, WW6, WW7, and WW8) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 48.0 mg/kg in soil samples EW2, EW3, and EW5 to 160 mg/kg in soil sample SW17.

On March 16, 2022, Etech collected two (2) confirmation soil samples (EW6 and SW18) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations were 64.0 mg/kg in soil sample EW6 and 544 mg/kg in soil sample SW18.

From March 18 through 21, 2022, Etech advanced a series of nine (9) hand-augered soil bores and/or test trenches (DSP1 through DSP9) to further characterize the affected area adjacent to and/or beneath the on-site storage tanks and associated containment area, piping, appurtenances, and electrical facilities requiring deferral of remediation. During the advancement of the soil bores/test trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. Based on field observations and field test data, a total of 18 deferral characterization soil samples (DSP1 @ Surf., DSP1 @ 1', DSP2 @ Surf., DSP2 @ 1', DSP3 @ Surf., DSP3 @ 8', DSP4 @ Surf., DSP4 @ 4', DSP5 @ Surf., DSP5 @ 8', DSP6 @ Surf., DSP6 @ 10', DSP7 @ Surf., DSP7 @ 14', DSP8 @ Surf., DSP8 @ 8', DSP9 @ Surf., and DSP9 @ 8') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical data, the extent of impacted soil was adequately defined and ranged from approximately one (1) foot bgs in the areas characterized by sample point DSP1.

The dimensions of the excavated area are approximately 282 to 748 feet in length, 18 to 111 feet in width, and four (4) feet in depth. To date, Etech has transported approximately 9,720 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 9,660 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

The extent of the affected area and the locations of the hand-augered soil bores and test trenches are depicted in Figure 3A, "Site & Sample Location Map (Delineation)". The extent of the excavated area, the area to be deferred, and the locations of the confirmation and deferral characterization samples are depicted in Figure 3B, "Site & Sample Location Map (Excavation)". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports are provided in Appendix F.

6.0 IN-SITU CHLORIDE MIGRATION MODELING

Review of the most recent GIS map data published by the BLM's Carlsbad Field Office on January 14, 2021, indicates the Red Hills Recycle release site is in an area of "medium" potential for karst occurrence. However, it is less than 1,200 feet from the area denoted as having a "high" karst potential and is potentially unstable. Due to the possible presence of karst and unstable soil, deeper excavation in this area poses a risk to human health and safety that exceeds the benefits of the removal of additional soil affected above the NMOCD Closure Criteria.

Etech utilized the Environmental Protection Agency's (EPA) Multimedia Exposure Assessment Model (MULTIMED) to determine if the chloride contamination remaining in-situ in the areas characterized by sample points FS1, FS2, and SP1 through SP5 poses a threat to groundwater quality, as well as to simulate the efficacy of installing a geosynthetic liner on the floor of the excavation. The most appropriate and conservative parameter values possible for the site were used for the assessment model in regard to depth to groundwater (125 feet bgs), deepest depth investigated (21 feet bgs), etc. Additional parameter values were utilized that have been previously approved by the NMOCD as being representative of the general area and for simulating lined versus unlined excavations and/or oil and gas facilites. The model indicates the peak concentration of chloride in the underlying groundwater contributed by the contamination remaining in-situ would be approximately 19.38 mg/L in 958 years if a liner were installed on the floor of the excavated area, versus 291.1 mg/L in 258 years if the excavation is not lined (see Appendix D).

Since the estimated chloride concentration is below the standard of 250.0 mg/L specified in Section 20.6.2.3103 B.(1) NMAC, pursuant to Section 19.15.29.14.A(2) NMAC, the migration model effectively demonstrates that the four (4) foot bgs excavation and installation of a geosynthetic liner provides an "equal or better protection of fresh water, public health and the environment" as a deeper excavation.

Etech also utilized the EPA MULTIMED simulator to determine if the contamination remaining in-situ adjacent to and/or beneath the on-site storage tanks and associated containment area, piping, appurtenances, and electrical facilities poses a threat to groundwater quality. Again, using the most appropriate and conservative parameters possible for the site and area of concern, the model indicates that the concentration of chloride contributed to the underlying groundwater will not exceed the standard of 250 mg/L until approximately 238 years have lapsed (see Appendix E).

Pursuant to Section 19.15.29.12.C(2) NMAC, the model effectively demonstrates that leaving the contamination in-situ in the areas characterized by sample points DSP1 through DSP9 "does not cause an imminent risk to human health, the environment, or ground water".

7.0 VARIANCE REQUEST

Pursuant to Section 19.15.29.14 NMAC, Mewbourne requests a variance to install a 20-mil, string-reinforced liner on the floor of the excavated area atop impacted soil affected above the NMOCD Closure Criteria in the areas characterized by sample points FS1, FS2, and SP1 through SP5. Approximately six (6) inches of pad material will be installed both above and below the liner in an effort to maintain its integrity during backfilling activities. The liner will be sloped to facilitate shedding of moisture outside both the footprint of the excavation and the maximum horizontal extent of impacted soil. This engineered control is designed to inhibit the vertical migration of chloride contamination remaining in-situ.

Immediately following installation of the liner and pad material, the excavated area will be backfilled with locally sourced, nonimpacted, "like" material placed at or near original relative positions and compacted/contoured to achieve erosion control, stability, and preservation of surface water flow to the extent practicable.

8.0 DEFERRAL REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX are below the applicable NMOCD Closure Criterion and NMOCD Reclamation Standard. Remediation of TPH- and/or chloride-impacted soil affected above the NMOCD Closure Criteria remaining in-situ adjacent to and/or beneath the on-site storage tanks and associated containment area, pipes, appurtenances, and electrical facilities will be completed upon decommissioning and abandonment of the water treatment facility, in accordance with Sections 19.15.29.12 and 19.15.29.13 NMAC.

9.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions. The affected area will be compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable. Affected areas not on production pads, pipeline right-of-ways, and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site. Final reclamation and re-vegetation of the active location will be conducted upon decommissioning and abandonment of the facility.

10.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary, Variance & Deferral Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

11.0 DISTRIBUTION

Mewbourne Oil Company

4801 Business Park Blvd. Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 1

1220 South St. Francis Drive Santa Fe, NM 87505

Hobbs Field Office New Mexico State Land Office 2827 North Dal Paso Street Suite 117 Hobbs, NM 88240

(Electronic Submission)

Figure 1 Topographic Map

<u>Page 15 of 20</u>6 Received by OCD: 4/19/2022 2:20:24 PM Re N TRAIL 14 15 16 17 3161 317 Drill Hole Gravel Red Hills Recycle Pond Facility 3160 Drill Grävel Eit e to 3149 150 JEEF 3142 3171 0 -----23 22 21 20 "Sattle-axe Ranch STRIP Drill Hole® 19314 3148 NOING 0 0.25 0.5 mi 3149 Figure 1 Legend **Topographic Map** • Site Location Mewbourne Oil Company Environmental & Safety Solutions, Inc. Red Hills Recycle Pond Facility GPS: 32.039798, -103.675828 Lea County Drafted: bja Checked: jwl Date: 12/20/21

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Figure 2 Aerial Proximity Map

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Figure 3A & 3B Site & Sample Location Maps



Environmental & Safety Solutions, Inc.

Date:

3/8/22

Checked: jwl

Drafted: Ic

GPS: 32.039798, -103.675828 Lea County

Mewbourne Oil Company

Received by OCD: 4/19/2022 2:20:24 PM



Table 1Concentrations of BTEX, TPH & Chloride in Soil

Table 1											
			Conce				Chloride in	ı Soil			
					wbourne (-	•				
					ills Recycl		•				
NMO	CD Classes C				D Ref. #: n	APP2124	632147			100	(00
	CD Closure C Reclamation			10	50	-	-	-	-	100	600
NWIOCD	Reclamation	Standard		10	50 5 8021B	-	-	-	-	100	600
		D (1	a "	5 W 640	0 80215			646 8015M			4500 Cl
Sample ID	Date	Depth (Feet)	Soil Status	Benzene	BTEX	GRO C6-C10	DRO C ₁₀ -C ₂₈	DRO	ORO C ₂₈ -C ₃₆	ТРН С6-С36	Chloride
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	C ₆ -C ₂₈	(mg/kg)	(mg/kg)	(mg/kg)
				Deli	neation & De		les	(mg/kg)	× 0 0,	× 0 0,	
FS1 @ 12'	2/9/2022	12	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FS2 @ 13'	2/9/2022	13	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS4 @ 4'	2/9/2022	4	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SP1 @ Surf.	2/24/2022	0	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,000
SP1 @ 2'	2/24/2022	2	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	464
SP2 @ Surf.	2/24/2022	0	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,060
SP2 @ 20'	2/24/2022	20	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	752
SP2 @ 21'	3/1/2022	21	In-Situ	-	-	-	-	-	-	-	96.0
SP3 @ Surf.	2/24/2022	0	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,920
SP3 @ 14'	2/24/2022	14	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SP4 @ Surf.	2/24/2022	0	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,520
SP4 @ 14'	2/24/2022	14	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
SP6 @ Surf.	2/24/2022	0	Excavated	< 0.050	< 0.300	<10.0	98.0	98.0	<10.0	98.0	832
SP6 @ 2'	2/24/2022	2	In-Situ	< 0.050	< 0.300	<10.0	13.9	13.9	<10.0	13.9	96.0
NH1 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NH1 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	13.7	13.7	<10.0	13.7	80.0
NH2 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
NH2 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
NH3 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
NH3 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
EH1 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
EH1 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EH2 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
EH2 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SH1 @ Surf.	2/25/2022	0	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
SH1 @ 1'	2/25/2022	1	Excavated	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SH2 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SH2 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SH3 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SH3 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WH1 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
WH1 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
WH2 @ Surf.	2/25/2022	0	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
WH2 @ 1'	2/25/2022	1	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
DSP1 @ Surf.	3/18/2022	0	Deferral	< 0.050	< 0.300	<10.0	29.8	29.8	22.6	52.4	20,800
DSP1 @ 1'	3/18/2022	1	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
DSP2 @ Surf.	3/18/2022	0	Deferral	< 0.050	< 0.300	<10.0	1,040	1,040	928	1,970	26,000
DSP2 @ 1'	3/18/2022	1	Deferral	< 0.050	< 0.300	<10.0	18.4	18.4	18.2	36.6	80.0
DSP3 @ Surf.	3/18/2022	0	Deferral	< 0.050	< 0.300	<10.0	4,700	4,700	1,260	5,960	32,800
DSP3 @ 8'	3/18/2022	8	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	528

Dash (-): Not applicable OR Sample not analyzed for that constituent. **Bold:** NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Table 1 Concentrations of BTEX, TPH & Chloride in Soil												
			Conce					Soil				
					wbourne (-	·					
					ills Recycl D Ref. #: n		•					
NMO	CD Closure C	riteria		10	50	-	-	-	_	100	600	
	Reclamation			10	50	-	-	-	_	100	600	
				SW 840	5 8021B		SW	846 8015M	Ext.		4500 Cl	
Sample ID	Date	Depth	Soil	_		GRO	DRO	GRO +	ORO	ТРН		
Sample ID	Date	(Feet)	Status	Benzene (mg/kg)	BTEX (mg/kg)	C ₆ -C ₁₀	C10-C28	DRO C ₆ -C ₂₈	C ₂₈ -C ₃₆	C6-C36	Chloride (mg/kg)	
				(8/8/	(8/8/	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ing/kg)	
DSP4 @ Surf.	3/18/2022	0	Deferral	< 0.050	< 0.300	<10.0	232	232	104	336	54,000	
DSP4 @ 4'	3/18/2022	4	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0	
\sim	3/18/2022	0	Deferral	< 0.050	< 0.300	<10.0	68.4	68.4	27.0	95.4	1,330	
DSP5 @ 8'	3/18/2022	8	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416	
DSP6 @ Surf.	3/21/2022	0	Deferral	< 0.050	< 0.300	<10.0	71.4	71.4	43.3	115	93,600	
DSP6 @ 10'	3/21/2022	10	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	528	
DSP7 @ Surf.	3/21/2022	0	Deferral	< 0.050	<0.300	<10.0	689	689	456	1,150	26,000	
DSP7 @ 14'	3/21/2022	14	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304	
DSP8 @ Surf.	3/21/2022	0	Deferral	< 0.050	< 0.300	<10.0	11.0	11.0	<10.0	11.0	78,400	
DSP8 @ 8'	3/21/2022	8	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272	
DSP9 @ Surf.	3/21/2022	0	Deferral	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	49,600	
DSP9 @ 8' 3/21/2022 8 Deferral <0.050 <0.300 <10.0 <10.0 <20.0 <10.0 <30.0 208 Excavation Samples												
NW1	2/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288	
NW2	2/9/2022	2	In-Situ	<0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160	
NW3	2/9/2022	2	In-Situ	<0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	224	
NW4	2/9/2022	2	In-Situ	<0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240	
NW5	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0	
NW6	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0	
NW7	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144	
NW8	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0	
NW9	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176	
NW10	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160	
NW11	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128	
NW12	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112	
NW13	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256	
NW14	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0	
NW15	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0	
NW16	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0	
NW17	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0	
NW18	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0	
EW1	2/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112	
EW2	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0	
EW3	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0	
EW4	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0	
EW5	3/15/2022	2	In-Situ	< 0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0	
EW6	3/16/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0	
SW1	2/10/2022	2	Excavated	< 0.050	< 0.300	<10.0	206	206	57.8	264	80.0	
SW1-A	3/9/2022	2	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-	
SW2	2/10/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0	
SW3	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0	

Dash (-): Not applicable OR Sample not analyzed for that constituent. **Bold:** NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company Red Hills Recycle Pond Facility NMOCD Ref. #: nAPP2124632147											
	CD Closure C			10	50	-	-	-	-	100	600
NMOCD	Reclamation	Standard		10	50	-	-	-	-	100	600
				SW 846	5 8021B		SW	846 8015M	Ext.	-	4500 Cl
Sample ID	Date	Depth (Feet)	Soil Status	Benzene (mg/kg)			DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C6-C36 (mg/kg)	Chloride (mg/kg)
SW4	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW5	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW6	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SW7	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW8	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW9	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW10	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW11	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
SW12	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW13	2/17/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
SW14	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
SW15	3/9/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SW16	3/10/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SW17	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
SW18	3/16/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	544
WW6	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WW7	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WW8	3/15/2022	2	In-Situ	< 0.050	< 0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0

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Appendix A Depth to Groundwater Information



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Territor State	V	Vate					00	v			e Engin pth t e		ter	
(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD been repl O=orpha C=the fil closed)	laced, ned,		(1			/ 2=NE est to lar	3=SW 4=S gest) (1	E) NAD83 UT	TM in m	eters)	(In t	feet)	
DOD N. I		Sub-	•	QQQ	-	T.	D			• 7	D: / D			Vater
POD Number C 02271	Code R	basın CUB	County LE	64 16 4 2 3		1ws 265	-	X 624449	3544111	Y	DistanceDep 1609	pth Well Dep 150	th Water Co 125	25
										Averag	ge Depth to Wat Minimum De Maximum Dej	pth:	125 fee 125 fee 125 fee	et
Record Count: 1 UTMNAD83 Radi	us Search (in	<u>1 meters)</u>) <u>:</u>											
Easting (X): 62	25025.97		North	ning (Y):	3545	613.55	5		Radius:	1610				
*UTM location was derive The data is furnished by the accuracy, completeness, reli	NMOSE/ISC	and is acc	cepted by th					derstanding t	hat the OSE	E/ISC ma	ke no warranties,	expressed or ir	nplied, concerr	ning the

11/15/21 10:49 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



C 02271	2 3 21	205 52E 02	24449 5544111* 🜍	
x Driller License:	Driller Company:			
Driller Name: UNKNO	OWN			
Drill Start Date:	Drill Finish Date:	12/31/1909	Plug Date:	
Log File Date:	PCW Rcv Date:		Source:	
Pump Type:	Pipe Discharge Size:	:	Estimated Yield:	15 GPM
Casing Size: 8.00	Depth Well:	150 feet	Depth Water:	125 feet

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/15/21 10:49 AM

POINT OF DIVERSION SUMMARY

Received by OCD: 4/19/2022 2:20:24 PM



Released to Imaging: 5/18/2022 3:43:51 PM

 \checkmark GO



Groundwater

United States

~

USGS Water Resources

e

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usqs site no list = • 320134103384101

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320134103384101 26S.32E.21.32311

Lea County, New Mexico Latitude 32°01'35.2", Longitude 103°41'01.8" NAD83 Land-surface elevation 3,130 feet above NAVD88 The depth of the well is 405 feet below land surface. The depth of the hole is 405 feet below land surface. This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer. This well is completed in the Dockum Group (231DCKM) local aquifer.

Output formats

Tab-separated data
Graph of data
Reselect period

Date \$	Time \$? Water- level ≎ date- time accuracy	? Parameter ^{\$} code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring ^{\$} agency	? Source of measurement	? Water- level approval status
1993-06-16		D	72019	405.00			1	L			А
2013-01-16	19:10 UTC	m	72019	221.94			Р	S	USGS	S	А

Explanation				
Section \$	Code \$	Description		
Water-level date-time accuracy	D	Date is accurate to the Day		
Water-level date-time accuracy	m	Date is accurate to the Minute		
Parameter code	62610	Groundwater level above NGVD 1929, feet		
Parameter code	62611	Groundwater level above NAVD 1988, feet		
Parameter code	72019	Depth to water level, feet below land surface		
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988		
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929		
Status	1	Static		
Status	Р	Pumping		
Method of measurement	L	Interpreted from geophysical logs.		
Method of measurement	S	Steel-tape measurement.		
Measuring agency		Not determined		
Measuring agency	USGS	U.S. Geological Survey		
Source of measurement		Not determined		
Source of measurement	S	Measured by personnel of reporting agency.		
Water-level approval status	А	Approved for publication Processing and review completed.		

Questions about sites/data? Feedback on this web site Automated retrievals Help Data Tips Explanation of terms Subscribe for system changes News

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U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2022-04-11 14:04:53 EDT 0.43 0.32 nadww01



Appendix B Field Data & Soil Profile Logs

Received by OCD: 4/19/2022 2:20:24 PM

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Field Samples*

	nai in Sujety Solution.	ay 17744			Date:	9/17 - 9/18/2021
Project: Red Hills Recycle Facility						
Project Num	iber:	14966	Latitude:	32.039798	Longitude:	-103.675828

Sample ID	PID/Odor	Chloride Conc.	GPS
SP1 @ Surface		5,938	
SP1 @ 1'		2,221	
SP1 @ 2'		219	
SP2 @ Surface		14,253	
SP2 @ 1'		4,503	
SP2 @ 2'		2,036	
SP2 @ 3'		4,738	
SP2 @ 4'		3,018	
SP2 @ 5'		2,256	
SP2 @ 6'		3,072	
SP2 @ 7'		403	
SP3 @ 1'		1,192	
SP3 @ 2'		1,059	
SP3 @ 3'		1,071	
SP3 @ 4'		2,827	
SP3 @ 5'		1,500	
SP3 @ 6'		1,114	
SP3 @ 7'		815	
SP3 @ 8'		453	
SP4 @ Surface		12,338	
SP4 @ 1'		3,573	
SP4 @ 2'		1,924	
SP4 @ 3'		951	
SP4 @ 4'		900	
SP4 @ 5'		747	
SP4 @ 6'		370	
SP5 @ Surface		4,501	
SP5 @ 1'		1,374	
SP5 @ 2'		1,286	
SP5 @ 3'		604	
SP5 @ 4'		460	
SP6 @ Surface		346	
SP7 @ Surface		218	
SP8 @ Surface		66,619	
SP8 @ 1'		3,697	
SP8 @ 2'		3,203	
SP8 @ 3'		1,943	
SP8 @ 4'		1,305	

*Samples collected and field-screened by a third-party contractor that is no longer affiliated with the site.

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Field Samples*

					Date:	9/17 - 9/18/2021
Project:	Red Hills Re	cycle Facility				
Project Num	nber:	14966	Latitude:	32.039798	Longitude:	-103.675828
	-					

Sample ID	PID/Odor	Chloride Conc.	GPS
SP8 @ 5'		485	
H1		302	
H2		217	
Н3		3,683	
H4		132	
Н5		160	
Н5		296	

*Samples collected and field-screened by a third-party contractor that is no longer affiliated with the site.



Sample Log

Date:

2-9-22

Project:	Red Hills Recycle	Facility
Project Numb	er:	14966

32.039798

Latitude:

Longitude: -103.675828

Sample ID	PID/Odor	Chloride Conc.	ar ar
FSIE3: FSIE6 - FSIEIN		2840-1532-1240>	FS1012 516
EWI ST EWI Right	-	384 384	
NW LOLA NAI BONT		<120 1532	
NW 200 NW2 Post	-	468 732	
NWS NW3 XIM	-	468 384	
NW4 Post		344	
SWI- SWIE	-	232 1072-1152	
SWALM SWA	-	924102000 44	
5W3 MA SW3 Right		236 672	
SHY LOR SHY P. 16	-	516	
FSJOT · FSJO6.FS20	-	2204-2376-	
FS304.FS306.FS30	-	17680924	
FS4 × 4	·	468	
FS2=10=FS2=12=FS2=13 FS3=10=FS3=12 SW1	·	1332 - 732 - 172	
FS3010:0FS3012	-	1900-620-	
SWIMM	-	304	
SWater	-	1340 - 1960 - 144	
FSBOIL		384	
FS 5 e 5: FS5el' FS5el'	-	120-672-996-550、2924-7550件公	236
NW5**** NW5***** SW5 ****	-	218 < 120	
SW5 "	-	172	
NW6		172	
SW6 FS6@6	-	204	
FS6@2	-	21.3	
SW7	-	268	
- SW 8	-	172	
NW 7	~	172	
NW 8	~	1428. <120	
NW9 FS7@4	Concernent of the second	792-236	
FS7@4	-	304	
FS 804	-	9016	
1569		768. < 292	
VIII VIO	-	324	
F59(94)		1760	
-5106.7	~	480	
Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= SP #1 @ 5b or SW #1b
Sample Point = SP #1 @ ## etc Floor = FL #1 etc Sidewall = SW #1 etc H = 5 + f.		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Areas
Aless.t.			
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N A COM			
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Sample Log

Project: Project Number:

14966

Date: 02/16/22 Latitude: 32.039798 Long ude: -103.675828

Sample ID	PID/Odor	Chloride Conc.	GPS
5W10		228	
NW (1		228	
ES IIG4'	-	1,232	
rs 120 4'	-	984	
SUIL	-	1232·6324	
NW12		Blavout < 200	
FS 1364	-	708	
FS 14 G 4 '	-	1.144 592	
SWIZ		592	
NW13	-	1026	
FS [3@4]	-	996	
VW13	~	516	
VW14	Approved 1	856.732.672	
SWI2	-	14	
SW13		144	
FS1604	-	996 1337	
FSITEH	~	1332	
SW 14 FS 18 e 4'	-	1240-000 1900-1332	
	-	1768	
VW14	-	672=568	
NH15	-	996.792	
STATES SW 14	-	COR 1153	
NW15	-	996-1532-1428-620	
SW 13+		996-1532-1428-120 924-1072-1072-996	
SW14+	-	1072-856	
W13+	-	1340-996	
W13++	-	1333	
VW15	-	856-620-620	
W 15+	-	1210	
VW 15+	-	1270 120 1152	
Wi3+	-	1152	
1W15+	-	444	
W 15+ W 13+ W 13+ W 13+	-	468	and and and an and a second
SW12++	-	924.568.384	
SW 12++ NW 16	-	924.568.384	
		1.0	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ## Refusal = SP #1 @ 4'-R

Resamples= SP #1 @ 5b or SW #1b Stockpile = Stockpile #1

Floor = FL #1 etc

Sidewall = SW #1 etc

Received by OCD:

Soil Intended to be Deferred = 5P #1 @ 4' In-Situ

GP5 Sample Points, Center of Comp Areas


Sample Log

Date:

Project:

Project Number:

Latitude:

Longitude:

		PID/Odor	Chloride Conc.	GPS
	SW 13+	47828-7	732-856-856-620-568	
	NW 167		516-463	
	NWIG+++	-	296.260.228	
Τ	WW	-	1576	
	WWZ	-	4332	
	NW15	-	1,44	
	NWIL		296	
	NW17	~	260	
	NW18	~	228	
	SW14		468	
	SW15	-	384	
	SW16		1116	
1	WW3	~	2464	
	WW+		TOK	
-	3W/7		196	
	WW5	~ .	1368	
	SW17+	-	228	
	SW17++	-	372	
+	WW6	-	4 3	
	WW7	~	500	· · · ·
1	WW7 EW2		296	
	EWS	<u> </u>	296	
	WW 8		228	
	EW4	-	196	
\downarrow	FAQU	-	260	
+	FBO4' ECel	-	372	
	d	-	188	
ŀ	10-9		160	
	EW5 W19		328	
+	WW9		824-596-412	+
	FDez'.FDe4		Fal 100	
	-Ee2)	196-228	
- VC		-		
	ENO FFEZ'		452	+
500	<u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	~	548	- <u> </u>
10/2	NIN IN			
Danied h. OCD. 1/1	Sample Point = SP #1@ ## etc FG@2		196 Test Irench = TT #1@ ##	Resentifics= 37 %1 @ 30 or SW #10
5	Floor = FL #1 etc FHe2) 6 8 Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
9	5 5idewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' in-Situ	GPS Sample Points, Center of Comp Areas
11	0			
	3			
a				

Page 38 of 2(~
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Environmental & Safety Solutions, Test Treaches + Horizontals

Sample Log

Date: 2-24-22

Project: Red Hills Recycle Facility Project Number:

Test Treaches

14966 Latitude: 32.039798 Longitude: -103.675828

PID/Odor Sample ID Chloride Conc. 036 SPIes, t. Spiel 1901-344 SP2es, fosp2e2 1532016480 -SP2e4 esp2ed 2572-23760 _ SP2@8'esP2@10 2600-2204-SP2e12°osP2@14 _ 1072012400 SP2021-236 Spack ospack ospacao _ 52-620-418 SP3eSunf. SP3ed'sP3e4 600-2376-2572--5P308 • SP308 • SP30 10 1900 • 1648 • 1532 • ~ SP3012 - SP3014 -1152-468 SP4esuf. ·SP4e2 · SP4e4 1900 • 1240 • 991 • -SP4e6 oSP4e8 oSP4e10 792 . 672 . 924 . _ SP4e12 . SP4e14 620-516 _ SP5es, f · SP5e2 · SP5e4 2840-2200-2376-_ SP506' . SP508' . SP5010' 1900 - 1532 - 1240 -SP5el2 512 -SP6@S.f. · SP6@2 1.240 - 172 -*Horizontals NHIes, f. • NHIEI 236.172 384 - 144 NHJest, f. ONHJel _ NH3es, f. = NH3el -228 . < 130 EHles, f. . EHle _ 236 . <120 EH2eS.f. . EH2el 228 . 172 _ SHIes, f. SHIE 324 . 144 _ SH desuf SHde _ 218 . 144 268 - 120 SH3cs,f. SH3el ----WHIes, f. . WHIE _ 236 - 172 WHZes, f. WHZel 236 - 144 ~ 9/2022

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ## Refusal = SP #1 @ 4'-R

Resamples= SP #1 @ 5b or SW #1b Stockpile = Stockpile #1

Floor = FL #1 etc

Sidewall = SW #1 etc

Received by OCD:

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

GPS Sample Points, Center of Comp Areas



Soil Profile

ject: Red Hills Recycle ject Number:	14966 Latitude:		Longitude:	-103.675828
$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8$	Sand, Red		cription	
$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8$	Sand, Red		cription	
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Appendix C Photographic Log

Photographic Log

Photo Number:	
1	
Date:	
7/12/2021	07/10/00/1 10/00
Photo Direction:	07/12/2021/10:03 +32.039739,-103.676102
North	
Coordinates:	
32.039739,-103.676102	
Photo Description:	
View of the affected area.	



Photographic Log





Photographic Log

Photo Number: 5 Date: 7/12/2021				
Photo Direction: South Coordinates: 32.039904,-103.676145			+32 039904	100.876
Photo Description:	Million 1	all and a lot		E and
View of the affected area.				



















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Appendix D Multimedia Exposure Assessment Model (MULTIMED)

Excavation

Chloride Concentration at the Receptor Well (Lined Excavation) Mewbourne Oil Company Red Hills Recycle Pond Facility

Released to Imaging: 5/18/2022 3:43:51 PM



Released to U.S. ENVIRONMENTAL PROTECTION AGENCY EXPOSURE ASSESSMENT Imagin MULTIMEDIA MODEL MULTIMED (Version 1.50, 2005) sitched to Stehfest algorithm to avoid numerical problems with Convolution algorithm. Problems were caused by high source decay rate. Everything ok now, execution continuing... 1 일 Ren options 3:43:51 Mewbourne Oil Company Red Hills Recycle Pond Facility Chemical simulated is Chloride Option Chosen Saturated and unsaturated zone models Run was DETERMIN Infiltration Specified By User: 7.620E-03 m/yr Run was transient Well Times: Find Maximium Concentration Reject runs if Y coordinate outside plume Reject runs if Z coordinate outside plume Gaussian source used in saturated zone model UNSATURATED ZONE FLOW MODEL PARAMETERS (input parameter description and value) - Total number of nodal points 240 NP - Number of different porous materials 1 NMAT KPROP - Van Genuchten or Brooks and Corey 1 1 IMSHGN - Spatial discretization option NVFLAYR - Number of layers in flow model 1 OPTIONS CHOSEN _____ _ ___ Van Genuchten functional coefficients User defined coordinate system 1 Layer information _____ LAYER NO. LAYER THICKNESS MATERIAL PROPERTY _____ _____ _____

1

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31.70

DATA FOR MATERIAL 1 ____ ___ ___

VADOSE ZONE MATERIAL VARIABLES

OR MATERIAL 1				
E MATERIAL VARIABLES				
DISTRIBUTION	PARAM MEAN	ETERS STD DEV	LIMI MIN	ITS MAX
CONSTANT CONSTANT CONSTANT CONSTANT CONSTANT	3.60 0.250 0.700 31.7	-999. -999. -999. 0.000	-999. -999. -999. 0.000	-999. -999. -999. 0.000

			MEAN	STD DEV
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.
Unsaturated zone porosity		CONSTANT	0.250	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.
Depth of the unsaturated zone	m	CONSTANT	31.7	0.000

UNITS DISTRIBUTION

DATA FOR MATERIAL 1

____ ___ ___

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS		
			MEAN	STD DEV	MIN	MAX	
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	
Brook and Corey exponent,EN		CONSTANT	-999.	-999.	-999.	-999.	
ALFA coefficient	1/cm	CONSTANT	0.500E-0	2 -999.	-999.	-999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	

1

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UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY -	Number of different layers used	1
NTSTPS -	Number of time values concentration calc	40
DUMMY -	Not presently used	1
ISOL -	Type of scheme used in unsaturated zone	1
N -	Stehfest terms or number of increments	18
NTEL -	Points in Lagrangian interpolation	3
NGPTS -	Number of Gauss points	104
NIT -	Convolution integral segments	2
IBOUND -	Type of boundary condition	3
ITSGEN -	Time values generated or input	1
TMAX -	Max simulation time	0.0
WTFUN -	Weighting factor	1.2

VARIABLE NAME

OPTIONS CHOSEN _____ ___

Stehfest numerical inversion algorithm Exponentially decaying continuous source Computer generated times for computing concentrations 1

Page 52 of 206

DATA FOR LAYER 1 ____ ___ ___ VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS DISTRIBUTION		PARA	METERS	LIMITS		
			MEAN	STD DEV	MIN	MAX	
Thickness of layer	 m	CONSTANT	31.7	-999.	-999.		
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.	
Percent organic matter		CONSTANT	0.000	-999.	-999.	-999.	
Percent organic matter Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.	
Biological decay coefficient	1/yr	CONSTANT	0.000	-999. -999. -999. -999.	-999.	-999.	
	CHEMICAI	SPECIFIC VARIABL	ES				
VARIABLE NAME	UNITS	DISTRIBUTION	PARA MEAN	METERS STD DEV	LI MIN	MITS MAX	
Solid phase decay coefficient							
Dissolved phase decay coefficient	1/yr	DERIVED		-999.			
Overall chemical decay coefficient	1/yr	DERIVED		-999.			
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT		-999.			
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000				
Base catalyzed hydrolysis rate Reference temperature	l/M-yr	CONSTANT	0.000				
Reference temperature	C	CONSTANT	25.0	-999.		-999.	
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.	
Distribution coefficient		DERIVED	-999.	-999.	-999.	-999.	
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.	
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.	
Reference temperature for air diffusion	С	CONSTANT	-999.		-999.	-999.	
Molecular weight	q/M	CONSTANT	-999.		-999.	-999.	
Mole fraction of solute		CONSTANT	-999.		-999.	-999.	
	mm Hg	CONSTANT	-999.	-999.	-999.	-999.	
Henry`s law constant		CONSTANT	-999.	-999.	-999.	-999.	
Overall 1st order decay sat. zone		DERIVED	0.000	0.000	0.000	1.00	
Not currently used	-/ 1-	CONSTANT	0.000	0.000	0.000		
Not currently used		CONSTANT	0.000	0.000	0.000	0.000	

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI	PARAMETERS		MITS	
			MEAN	STD DEV	MIN	MAX	
Infiltration rate	m/yr	CONSTANT	0.762E-02	-999.	-999.	-999.	
Area of waste disposal unit	m^2	CONSTANT	0.459E+04	-999.	-999.	-999.	Pa
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.	Se
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.	5
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	.0
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000	f 2
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.	90

1

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Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	

AQUIFER SPECIFIC VARIABLES

Width scale of facility Near field dilution	m	DERIVED DERIVED	-999. 1.00	-999. 0.000	-999. 0.000	-999. 1.00	
	AQUIFE	ER SPECIFIC VARIABLES	S				
VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	 MITS	
			MEAN	STD DEV	MIN	MAX	
Particle diameter	 	CONSTANT	-999.	-999.	-999.	-999.	
Aquifer porosity		CONSTANT	0.300	-999.	-999.	-999.	
ulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.	
quifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.	
ource thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.	
onductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.	
Gradient (hydraulic)	-	CONSTANT	0.300E-0	2 -999.	-999.	-999.	
Froundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.	
Retardation coefficient		DERIVED	-999.	-999.	-999.	-999.	
longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Temperature of aquifer	С	CONSTANT	20.0	-999.	-999.	-999.	
PH		CONSTANT	7.00	-999.	-999.	-999.	
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.	
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.	
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.	
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.	

MAXIMUM WELL CONCENTRATION IS 19.38 AT 958 YEARS

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Chloride Concentration at the Receptor Well (Unlined Excavation) Mewbourne Oil Company Red Hills Recycle Pond Facility

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U.S. ENVIRONMENTAL PROTECTION AGENC	Y
EXPOSURE ASSESSMENT	
NULTIMEDIA MODEL	
MULTIMED (Version 1.50, 2005)	
U.S. ENVIRONMENTAL PROTECTION AGENC EXPOSURE ASSESSMENT MULTIMEDIA MODEL MULTIMED (Version 1.50, 2005)	
Option Chosen Run was Saturated and unsaturated zone models	
DETERMIN Infiltration Specified By User: 3.048E-02 m/yr Run was transient Well Times: Find Maximium Concentration Reject runs if Y coordinate outside plume Reject runs if Z coordinate outside plume Gaussian source used in saturated zone model 1	
UNSATURATED ZONE FLOW MODEL PARAMETERS (input parameter description and value) NP - Total number of nodal points 240 NMAT - Number of different porous materials 1 KPROP - Van Genuchten or Brooks and Corey 1 IMSHGN - Spatial discretization option 1 NVFLAYR - Number of layers in flow model 1	
OPTIONS CHOSEN	
Van Genuchten functional coefficients User defined coordinate system 1	
Layer information	
LAYER NO. LAYER THICKNESS MATERIAL PROPERTY	
1 31.70 1	

VADOSE ZONE MATERIAL VARIABLES

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VARIABLE NAME	UNITS DISTRIBUTION		PARA	PARAMETERS		MITS
			MEAN	STD DEV	MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity		CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	31.7	0.000	0.000	0.000
		OR MATERIAL 1				

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI	ETERS	LI	MITS
			MEAN	STD DEV	MIN	MAX
Residual water content		CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN		CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY -	Number of different layers used	1
NTSTPS -	Number of time values concentration calc	40
DUMMY -	Not presently used	1
ISOL -	Type of scheme used in unsaturated zone	2
N -	Stehfest terms or number of increments	18
NTEL -	Points in Lagrangian interpolation	3
NGPTS -	Number of Gauss points	104
NIT -	Convolution integral segments	2
IBOUND -	Type of boundary condition	3
ITSGEN -	Time values generated or input	1
TMAX -	Max simulation time	0.0
WTFUN -	Weighting factor	1.2

OPTIONS CHOSEN

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_____ ___ Convolution integral approach Exponentially decaying continuous source Computer generated times for computing concentrations 1

> DATA FOR LAYER 1 ____ ___ ___ VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS
			MEAN	STD DEV	MIN	MAX
Thickness of layer	m	CONSTANT	31.7	-999.		-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.			-999.
Percent organic matter		CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.
	CHEMICAL	SPECIFIC VARIABL	ES			
VARIABLE NAME	UNITS	DISTRIBUTION		METERS		MITS
			MEAN	STD DEV	MIN	
Solid phase decay coefficient	1/yr	DERIVED	-999.			
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED		-999.		-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	С	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient		DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	С	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	a/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute		CONSTANT	-999.	-999.	-999.	-999.
	mm Hg		-999.	-999.	-999.	-999.
	atm-m^3/M	CONSTANT	-999.	-999.	-999.	
Henry`s law constant a		DERIVED	0.000	0.000	0.000	I .00
		DERIVED CONSTANT	0.000 0.000			

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAM	 ETERS	LI	MITS	
			MEAN	STD DEV	MIN	MAX	
Infiltration rate	m/yr	CONSTANT	0.305E-01	-999.	-999.	-999.	
Area of waste disposal unit	m^2	CONSTANT	0.459E+04	-999.	-999.	-999.	
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.	
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.	
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	Pa
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000	Page
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.	50
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	.0
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	f 2
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	206

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AQUIFER SPECIFIC VARIABLES								
VARIABLE NAME	UNITS DISTRIBUTION		PARAM	PARAMETERS		LIMITS		
			MEAN	STD DEV	MIN	MAX		
Particle diameter	 CM	CONSTANT	-999.	-999.	-999.	-999.		
Aquifer porosity		CONSTANT	0.300	-999.	-999.	-999.		
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.		
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.		
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.		
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.		
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.		
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.		
Retardation coefficient		DERIVED	-999.	-999.	-999.	-999.		
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.		
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.		
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.		
Temperature of aquifer	С	CONSTANT	20.0	-999.	-999.	-999.		
рн		CONSTANT	7.00	-999.	-999.	-999.		
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.		
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.		
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.		
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.		

MAXIMUM WELL CONCENTRATION IS 291.1 AT 258 YEARS

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Appendix E Multimedia Exposure Assessment Model (MULTIMED)

Deferral Area

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Chloride Concentration at the Receptor Well (Deferred Area) Mewbourne Oil Company Red Hills Recycle Pond Facility

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	VI.UI DALE OF CALC	CULATIONS. IJ-AFR-2022 TIME. 21.32.30
Relea	U. S.	ENVIRONMENTAL PROTECTION AGENCY
ased		EXPOSURE ASSESSMENT
to Im		MULTIMEDIA MODEL
agin		MULTIMED (Version 1.50, 2005)
1 P.	l Company cycle Pond Facility ulated is Chloride	
Option Chose: Run was	n	Saturated and unsaturated zone models DETERMIN
Run was tran Well Times: Reject runs Reject runs	Specified By User: sient Find Maximium Concer if Y coordinate outs if Z coordinate outs rce used in saturate	2.286E-02 m/yr ntration side plume side plume
(input param NP - To NMAT - Nu KPROP - Va IMSHGN - Sp	ZONE FLOW MODEL PARA eter description and tal number of nodal mber of different po n Genuchten or Brood atial discretization mber of layers in fi	d value) points 240 orous materials 3 ks and Corey 1 n option 1
OPTIONS CHOS	EN	
	 n functional coeffic coordinate system	cients
Layer inform	ation	
LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1 2 3	33.00 2.50 0.50	1 2 3

DATA FOR MATERIAL 1

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VADOSE ZONE MATERIAL VARIABLES

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VARIABLE NAME	UNITS	DISTRIBUTION	PARA	PARAMETERS		 MITS	
			MEAN	STD DEV	MIN	MAX	
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.	
Unsaturated zone porosity		CONSTANT	0.250	-999.	-999.	-999.	
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.	
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000	

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS		
			MEAN	STD DEV	MIN	MAX	
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	
Brook and Corey exponent,EN		CONSTANT	-999.	-999.	-999.	-999.	
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	

DATA FOR MATERIAL 2

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VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARA MEAN	METERS STD DEV	LI MIN	MITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity Air entry pressure head	— — m	CONSTANT CONSTANT	0.120 0.700	-999. -999.	-999. -999.	-999. -999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 2

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VADOSE ZONE FUNCTION VARIABLES

							Page (
VARIABLE NAME	UNITS	DISTRIBUTION	MEAN	METERS STD DEV	MIN	MITS MAX	53 of
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	206

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Brook and Corey exponent,EN		CONSTANT	-999.	-999.	-999.	-999.	
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	
	DATA F(or material 3					
	VADOSE ZONE	E MATERIAL VARIABL	JES				
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME		LI	IMITS	
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME MEAN	ETERS STD DEV	LI MIN	IMITS MAX	
	UNITS cm/hr	DISTRIBUTION CONSTANT		STD DEV			
VARIABLE NAME Saturated hydraulic conductivity Jnsaturated zone porosity			MEAN	STD DEV	MIN	MAX	
Saturated hydraulic conductivity		CONSTANT	MEAN 0.848E-03	STD DEV -999.	MIN -999.	MAX -999.	

DATA FOR MATERIAL 3

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VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAM	ETERS	LI	MITS
			MEAN	STD DEV	MIN	MAX
Residual water content		CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent, EN		CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-03	-999.	-999.	-999.
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.

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UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	_	Number of different layers used	1
NTSTPS	-	Number of time values concentration calc	40
DUMMY	-	Not presently used	1
ISOL	-	Type of scheme used in unsaturated zone	2
Ν	-	Stehfest terms or number of increments	18
NTEL	-	Points in Lagrangian interpolation	3
NGPTS	-	Number of Gauss points	104
NIT	-	Convolution integral segments	2
IBOUND	-	Type of boundary condition	3
ITSGEN	-	Time values generated or input	1
TMAX	-	Max simulation time	0.0
WTFUN	-	Weighting factor	1.2

OPTIONS CHOSEN

Convolution integral approach Exponentially decaying continuous source Computer generated times for computing concentrations

DATA FOR LAYER 1							
	VADOSE	TRANSPORT VARIABL	ES				
VARIABLE NAME	UNITS	DISTRIBUTION	PARA MEAN	METERS STD DEV	LI MIN	MITS MAX	
 Thickness of layer	 m	CONSTANT	36.0	-999.		-999.	
Songitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.	
Percent organic matter		CONSTANT	0.000	-999.	-999.	-999.	
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.	
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.	

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	 DADA	 Meters	т.т	 MITS
VACIADLE NAME	01115	DISTRIBUTION	MEAN	STD DEV	MIN	MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	С	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient		DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	С	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute		CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant a	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI MEAN	ETERS STD DEV	LI MIN	MITS MAX	Pag
Infiltration rate Area of waste disposal unit Duration of pulse Spread of contaminant source	m/yr m^2 yr m	CONSTANT CONSTANT DERIVED DERIVED	0.229E-01 0.241E+04 0.100E-08 -999.	-999. -999.	-999. -999. -999. -999.	-999. -999. -999. -999.	e 65 of 206

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Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	
Source decay constant	1/yr	CONSTANT	0.250E-0	01 0.000	0.000	0.000	>
Initial concentration at landfill	mg/l	CONSTANT	0.193E+0	05 -999.	-999.	-999.	Received
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	en
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	vea
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	l by
							~

AQUIFER SPECIFIC VARIABLES

Source decay constant Initial concentration at landfill Length scale of facility Width scale of facility Near field dilution	1/yr mg/l m m	CONSTANT CONSTANT DERIVED DERIVED DERIVED	0.250E-01 0.193E+05 -999. -999. 1.00	-999. -999.	0.000 -999. -999. -999. 0.000	-999.	
	AQUIFE	R SPECIFIC VARIABLE:	S				
VARIABLE NAME	UNITS	DISTRIBUTION	PARAM MEAN	ETERS STD DEV		MITS MAX	
Particle diameter	 cm	CONSTANT	-999.	 -999.	-999.		
Aquifer porosity		CONSTANT	0.300	-999.			
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.		
Aquifer thickness	m g, cc	CONSTANT		-999.	-999.		
Source thickness (mixing zone depth)	m	DERIVED		-999.	-999.		
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.		
Gradient (hydraulic)	· 1	CONSTANT	0.300E-02	-999.	-999.	-999.	
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.	
Retardation coefficient		DERIVED	-999.	-999.	-999.		
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Temperature of aquifer	С	CONSTANT	20.0	-999.	-999.	-999.	
рН		CONSTANT	7.00	-999.	-999.	-999.	
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.	
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.	
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.	
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.	

MAXIMUM WELL CONCENTRATION IS 1774. AT 374 YEARS

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nagin		MULTIMED (Version 1.50, 2005)
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Méwbourne Oi	l Company	
R HIIIS RE	ecycle Pond Facility	
CÈmical sim	ulated is Chloride	
Option Chose	'n	
Run was		Saturated and unsaturated zone models DETERMIN
Run was trar Well Times: Reject runs Reject runs	A Specified By User: Asient Entered Explicitly if Y coordinate out if Z coordinate out arce used in saturat	side plume side plume
1		
	ZONE FLOW MODEL PAR neter description an	
	otal number of nodal umber of different p	
KPROP - Va	an Genuchten or Broo Datial discretizatio	ks and Corey 1
	umber of layers in f	
OPTIONS CHOS		
	en functional coeffi l coordinate system	vients
Layer inform	nation	
LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	33.00	1
2 3	2.50 0.50	2 3

DATA FOR MATERIAL 1

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VADOSE ZONE MATERIAL VARIABLES

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VARIABLE NAME	UNITS	DISTRIBUTION	PARA	PARAMETERS		 MITS	
			MEAN	STD DEV	MIN	MAX	
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.	
Unsaturated zone porosity		CONSTANT	0.250	-999.	-999.	-999.	
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.	
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000	

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		 LI	MITS	
			MEAN	STD DEV	MIN	MAX	
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	
Brook and Corey exponent,EN		CONSTANT	-999.	-999.	-999.	-999.	
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	

DATA FOR MATERIAL 2

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VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARA MEAN	METERS STD DEV	LIMITS MIN MAX	
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity Air entry pressure head	—— m	CONSTANT CONSTANT	0.120 0.700	-999. -999.	-999. -999.	-999. -999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 2

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VADOSE ZONE FUNCTION VARIABLES

							Pag
VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LIMITS		e 68
			MEAN	STD DEV	MIN	MAX	of
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	206

Brook and Corey exponent, EN ALFA coefficient	 1/cm	CONSTANT CONSTANT	-999. 0.500E-02	-999. -999.	-999. -999.	-999. -999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	
	DATA FO	or material 3					
	VADOSE ZONI	E MATERIAL VARIABL	ES				
VARTARLE NAME			 Parame				
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME MEAN	ETERS STD DEV	LI MIN	IMITS MAX	
VARIABLE NAME Saturated hydraulic conductivity	UNITS cm/hr	DISTRIBUTION CONSTANT		STD DEV			
			MEAN	STD DEV	MIN	MAX	
Saturated hydraulic conductivity		CONSTANT	MEAN 0.848E-03	STD DEV 	MIN -999.	MAX -999.	

DATA FOR MATERIAL 3

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VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAM	ETERS	LI	MITS
			MEAN	STD DEV	MIN	MAX
Residual water content		CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent, EN		CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-03	-999.	-999.	-999.
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.

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UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	_	Number of different layers used	1
NTSTPS	_	Number of time values concentration calc	40
DUMMY	-	Not presently used	1
ISOL	-	Type of scheme used in unsaturated zone	2
Ν	-	Stehfest terms or number of increments	18
NTEL	-	Points in Lagrangian interpolation	3
NGPTS	-	Number of Gauss points	104
NIT	-	Convolution integral segments	2
IBOUND	-	Type of boundary condition	3
ITSGEN	-	Time values generated or input	1
TMAX	-	Max simulation time	0.0
WTFUN	-	Weighting factor	1.2

OPTIONS CHOSEN

Convolution integral approach Exponentially decaying continuous source Computer generated times for computing concentrations

DATA FOR LAYER 1										
VADOSE TRANSPORT VARIABLES										
VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN STD DEV		LIMITS MIN MAX					
 Thickness of layer	 m	CONSTANT	36.0	-999.	-999.	-999.				
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.				
Percent organic matter		CONSTANT	0.000	-999.	-999.	-999.				
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.				
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.				

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	 Meters	т.т	 MITS
	01110	DIDINIDUIION	MEAN	STD DEV	MIN	MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	С	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient		DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	С	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute		CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI MEAN	ETERS STD DEV	LIMITS MIN MAX		Pag
Infiltration rate Area of waste disposal unit Duration of pulse Spread of contaminant source	m/yr m^2 yr m	CONSTANT CONSTANT DERIVED DERIVED	0.229E-01 0.241E+04 0.100E-08 -999.	-999. -999.	-999. -999. -999. -999.	-999. -999. -999. -999. -999.	e 70 of 206

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Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	
Source decay constant	1/yr	CONSTANT	0.250E-0	01 0.000	0.000	0.000	>
Initial concentration at landfill	mg/l	CONSTANT	0.193E+0	05 -999.	-999.	-999.	lec
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	ei
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	<i>Yea</i>
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	[b)
							~

AQUIFER SPECIFIC VARIABLES

Source decay constant Initial concentration at landfill Length scale of facility Width scale of facility Near field dilution	1/yr mg/l m m	CONSTANT CONSTANT DERIVED DERIVED DERIVED	0.250E-01 0.193E+05 -999. -999. 1.00	-999. -999. -999.	-999.	-999.	Received by OCD: 4/19/2022
	AQUIFE	R SPECIFIC VARIABLE	S				<i>OCD</i> : 4
VARIABLE NAME	UNITS	DISTRIBUTION	PARAM MEAN	ETERS STD DEV		MITS MAX	/19/202.
Particle diameter	CM	CONSTANT	-999.	-999.	-999.		2:20:24 PM
Aquifer porosity		CONSTANT	0.300	-999.			24
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.		P
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.		M
Source thickness (mixing zone depth)	m	DERIVED		-999.	-999.		
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.		
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.		
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.	
Retardation coefficient		DERIVED	-999.	-999.	-999.	-999.	
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.		
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.		
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.	
Temperature of aquifer	С	CONSTANT	20.0	-999.	-999.	-999.	
рH		CONSTANT	7.00	-999.	-999.	-999.	
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.	
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.	
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.	
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.	

	Released to
1	Imaging:
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	3:43:51
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TIME	CONCENTRATION
0.100E+0 0.200E+0 0.300E+0 0.400E+0 0.500E+0 0.600E+0 0.700E+0 0.800E+0 0.900E+0 0.100E+0 0.110E+0 0.120E+0 0.130E+0 0.140E+0 0.150E+0 0.160E+0 0.180E+0 0.190E+0	2 0.00000E+00 2 0.00000E+00 2 0.00000E+00 2 0.00000E+00 2 0.00000E+00 2 0.00000E+00 2 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.00000E+00 3 0.49429E+00 3 0.42447E+01 3 0.89503E+01

0.200E+03	0.40927E+02
0.210E+03	0.62804E+02
0.220E+03 0.230E+03	0.12270E+03 0.18365E+03
0.240E+03	0.27895E+03
0.250E+03 0.260E+03	0.39428E+03 0.52274E+03
0.270E+03	0.68325E+03
0.280E+03	0.84376E+03
0.290E+03	0.10144E+04 0.11855E+04
0.300E+03 0.310E+03	0.11855E+04 0.13373E+04
0.320E+03	0.14766E+04
0.330E+03	0.15993E+04
0.340E+03 0.350E+03	0.16764E+04 0.17536E+04
0.360E+03	0.17652E+04
0.370E+03	0.17716E+04
0.380E+03 0.390E+03	0.17429E+04 0.16892E+04
0.400E+03	0.16259E+04
0.410E+03	0.15329E+04
0.420E+03 0.430E+03	0.14399E+04 0.13314E+04
0.440E+03	0.12212E+04
0.450E+03	0.11113E+04
0.460E+03 0.470E+03	0.10016E+04 0.89443E+03
0.480E+03	0.79637E+03
0.490E+03	0.69832E+03
0.500E+03 0.510E+03	0.61514E+03 0.53401E+03
0.520E+03	0.46247E+03
0.530E+03 0.540E+03	0.39916E+03 0.33905E+03
0.540E+03 0.550E+03	0.29188E+03
0.560E+03	0.24473E+03
0.570E+03 0.580E+03	0.20900E+03 0.17520E+03
0.580E+03 0.590E+03	0.17520E+03 0.14657E+03
0.600E+03	0.12282E+03
0.610E+03	0.10145E+03 0.84947E+02
0.620E+03 0.630E+03	0.69230E+02
0.640E+03	0.57967E+02
0.650E+03 0.660E+03	0.46731E+02 0.39066E+02
0.670E+03	0.31551E+02
0.680E+03	0.26024E+02
0.690E+03 0.700E+03	0.21076E+02 0.17150E+02
0.700E+03 0.710E+03	0.13936E+02
0.720E+03	0.11187E+02
0.730E+03 0.740E+03	0.91249E+01 0.72280E+01
0.740E+03 0.750E+03	0.72280E+01 0.59184E+01

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0.760E+03	0.46511E+01
0.770E+03	0.38025E+01
0.780E+03	0.29791E+01
0.790E+03	0.24192E+01
0.800E+03	0.19059E+01
0.810E+03	0.15227E+01
0.820E+03	0.12051E+01
0.830E+03	0.94623E+00
0.840E+03	0.75106E+00
0.850E+03	0.57829E+00
0.860E+03	0.45909E+00
0.870E+03	0.34557E+00
0.880E+03	0.27262E+00
0.890E+03	0.20022E+00
0.900E+03	0.15430E+00
0.910E+03	0.11054E+00
0.920E+03	0.79675E-01
0.930E+03	0.53342E-01
0.940E+03	0.32863E-01
0.950E+03	0.17080E-01
0.960E+03	0.36497E-02
0.970E+03	0.00000E+00
0.980E+03	0.00000E+00
0.990E+03	0.00000E+00
0.100E+04	0.00000E+00

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Received by OCD: 4/19/2022 2:20:24 PM

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Appendix F Laboratory Analytical Reports



February 14, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/10/22 15:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 1 @ 12' (H220537-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	QR-03
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	101 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	116 9	% 59.5-14	`						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 2 @ 13' (H220537-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	127	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	143	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 4 @ 4' (H220537-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	105	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 1 (H220537-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	109 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 2 (H220537-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	137 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	154 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 3 (H220537-06)

BTEX 8021B	mg/	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	122 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	136 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 4 (H220537-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	107	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 1 (H220537-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	100	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	113 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/10/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 1 (H220537-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	206	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	57.8	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	105	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/10/2022	Sampling Date:	02/10/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 2 (H220537-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/11/2022	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					
Surrogate: 1-Chlorooctane	98.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

No	Res	h

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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RDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name	: Etech Environmenta	al & Safety Solu	tions,	Inc	c .		-			8	\underline{m}	1 10						ANA	LYSI	S RE	QUE	ST	
Project Manage	: Lance Crepshaw		-						P.O.														
Address: P.O.	. Box 301							0	Com	pany:/	M	enpont											
City: Lovingto	Hobbs	State: NM	Zip:	88	260 8	82	40		Attn:	Robbi	ie.	Russels	9	1									
Phone #: (575	5) 396-2378	Fax #: (575) 3	396-14	429)					ess:													
Project #: 14	166 Red Hills Recycl Mewbourne Oil	Project Owne	r: Ro	Lhi	e R.		1	-	City:					1									
Project Name:	Red Hills Resul	e Facility		001	- //	11			State		;	Zip:			2W)	BTEX (8021B)							
Project Location	Markane All	C				-	*			ne #:				P.	301	803							
Sampler Name:	Eric Mojica	owierd							Fax		-			Chioride	FPH (8015M)	EX							
FOR LAB USE ONLY						MAT	RIX	-	_	RESER	V.	SAMPLI	NG	Ĭ	₽	BT							
Lab I.D. H220537	Sample I.	.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ICE / COOL	OTHER :	DATE	TIME										
1	FSIeld		C	1		1			T	1		2.9.22		1	V	V							
23	FSZOIS		C	1		1				V		2.9.22		1	1	V							
3	FS4e4		C	1		1				1		2.9.22		V	V	1							
4	NWI		С	1		V				1		2-9-22		V	V	1							
5	NW2		С	1		1				1		2.9.22		V	V	1							
4	NW3		С	1		V			+	1		2.9.22		1	1	V		-	-	-	-		
7	NW4		С	1		V			_	1		2.9.22		V	V	1			-	-	-		-+
8	EWI		С	1		1			+	V		2.9.22		1	11	1	-	-	-	-	-		-+
9	SWI		C	1		V		-	+	1		2.10.12		V	V	1		-	-	-			
10	SWa		C			V				V	_	2.10.22	d by the stant for	1	V	1							
enalyses. All claims includin ervice in no event shall Ca	Id Damages. Cardinal's liability and clie ng those for negligence and any other of ardinal be liable for incidential or consec ng out of or related to the performance.	cause whateoever shall be questel damages, include	deemed g without	l waie L Bunik	nd unless i ation, busin	made in Ioas ink	n welling erruptio	g and r one, los	nacelyas as of us	i by Cardin a, or loss of	nd vel If pro	thin 30 days allow dis incurred by d	r completion of 1 dest, its subsidie	the application,	itile								
Relinquished B	Wa	Date: 7-9-22 Time: 7549 Date:			ved By	la	Y G	8 A	U	lde	V	by	Finne Re Fax Resu FEMARK	it:			No No		Phone Fax #:	*#:			
Delivered By: Sampler - UPS	· (Circle One) 3.(- Bus - Other:		2.5	00	Sar	nple		ť	m		THE	ED BY:	Please e	email	result	s to pr	n@et	echen	v.con	n.			

Revision 1.0



February 23, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/17/22 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 3 (H220637-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.159	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	90.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.9	% 59.5-14	`						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 4 (H220637-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.144	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	88.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	90.7	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 5 (H220637-03)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.096	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	89.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.2	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 6 (H220637-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.075	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	86.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.0	% 59.5-14	2						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 7 (H220637-05)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	<0.050	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	86.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.6	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 8 (H220637-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.057	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/21/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	88.5	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.2	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 9 (H220637-07)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.129	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	89.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.1	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 10 (H220637-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.200	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	84.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.4	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 11 (H220637-09)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	<0.050	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	86.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	88.9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 12 (H220637-10)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	0.115	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	90.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.1	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 13 (H220637-11)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.163	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	89.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.5	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 5 (H220637-12)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.051	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	91.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.2	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 6 (H220637-13)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.121	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	81.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	83.5	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 7 (H220637-14)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.140	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	79.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	82.3	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 8 (H220637-15)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.067	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	84.5	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.7	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 9 (H220637-16)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.070	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					
Surrogate: 1-Chlorooctane	88.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	90.8	% 59.5-14	2						

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Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 10 (H220637-17)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.135	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					
Surrogate: 1-Chlorooctane	87.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.5	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 11 (H220637-18)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.116	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					
Surrogate: 1-Chlorooctane	87.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.7	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 12 (H220637-19)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.087	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					
Surrogate: 1-Chlorooctane	87.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.5	% 59.5-14	2						

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*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 13 (H220637-20)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	0.169	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500CI-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/21/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2022	ND	206	103	200	6.49	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	193	96.6	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					
Surrogate: 1-Chlorooctane	84.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	88.2	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager


Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS PEOLIEST

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Company Name: Etech Environmental & Safet Project Manager: LAALE Creashaw	Solutions	5, 111	IG.				P.O.		LLIU		1			 ANA		5 RE	QUES	
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Phone #: (575) 396-2378 Fax #: (575) 396-1429					-	ddn	BSS:	-										
Project #: 14966 Project Owner: Robbie Runels Project Name: Red Hills Recycle Facility				-	City:				ÎN	â								
				2	state		Zip:	-	Chloride	Chloride TPH (8015M)	021							
Project Location: Menbourne Oil Canpany						Phone #:					(80	BTEX (8021B)						
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EASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive ren		Ц		N	1			V.	1/		V	1	V	1				

FORM-006 **Revision 1.0**

T Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

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Project Location: Menbourne Oil Company					(80	X (8						
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Released to Imaging: 5/18/2022 3:43:51 PM

Page 24 of 24



February 28, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/25/22 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ SURFACE (H220744-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	02/26/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	100	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	104	% 59.5-14	2						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ 2' (H220744-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	02/26/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	94.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	97.3	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ SURFACE (H220744-03)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	02/26/2022	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	97.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ 20' (H220744-04)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	98.0	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.6	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ SURFACE (H220744-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	93.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	97.0	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ 14' (H220744-06)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	96.9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.1	% 59.5-14	-						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 4 @ SURFACE (H220744-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	105	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 4 @ 14' (H220744-08)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	104	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	108	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 6 @ SURFACE (H220744-09)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	98.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	90.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	103	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 6 @ 2' (H220744-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	13.9	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	93.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 1 @ SURFACE (H220744-11)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	103 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	113 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 1 @ 1' (H220744-12)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	13.7	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	98.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	108	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 2 @ SURFACE (H220744-13)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	101 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 2 @ 1' (H220744-14)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	107	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	118 9	% 59.5-14	2						

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Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 3 @ SURFACE (H220744-15)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	125 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	127 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 3 @ 1' (H220744-16)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/25/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	124	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	127	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 1 @ SURFACE (H220744-17)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					
Surrogate: 1-Chlorooctane	120 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	121 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 1 @ 1' (H220744-18)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	123	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 2 @ SURFACE (H220744-19)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	108	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	109	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 2 @ 1' (H220744-20)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	118 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 1 @ SURFACE (H220744-21)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	120 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	% 59.5-14	`						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 1 @ 1' (H220744-22)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	126	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	127	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 2 @ SURFACE (H220744-23)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	123 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 2 @ 1' (H220744-24)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	122	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 3 @ SURFACE (H220744-25)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	125 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	131 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 3 @ 1' (H220744-26)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	121	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	124	% 59.5-14	2						

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Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 1 @ SURFACE (H220744-27)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	118 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	121 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 1 @ 1' (H220744-28)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	113 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	116 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 2 @ SURFACE (H220744-29)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	112 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	114 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 2 @ 1' (H220744-30)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/26/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					
Surrogate: 1-Chlorooctane	111 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

ARDINAL LABORATORIE 101 East Mariand, Hobbs, NM 8 (575) 393-2326 FAX (575) 393-	8240										1 of 3	5	
ompany Name: Etech Environmental & Safety Sol			BI	LL TO					ANA	LYSIS R	EQUEST	r	
roject Manager: Lance Crenshaw			P.O. #:										
ddress: P.O. Box 301			Company:	le w bour A	Ł								
ty: Lovington. Hobbs State: NM	Zip: 88260-	88240	Attn: Robbi	e Runels	s								
2000 # (575) 306 2378 Eav # (575)	396-1429		Address:										
roject #: 14966 Project Own	er: Robbie R	vanels	City:					_					
roject #: 14966 roject Name: Red Hills Recycle Facility roject Location: Mew bourne Oil Compo ampler Name: Eric Mejico			State:	Zip:		•	TPH (8015M)	BTEX (8021B)					
oject Location: Me w bourse Oil Comp			Phone #:	_		Chloride	801	(80					
ampler Name: Eric Moiler	-)		Fax #:			Chi	H	EX					
OR LAB USE ONLY		MATRIX	PRESERV. SAMPLING				F	81					
	ROMP												
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER	SOIL SOIL	OTHER : ACID/BASE ICE / 000L OTHER :										
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J SP40 S.F	GI	4	1			1	1	/					-
a sp4e 14	GI	1	1	-1		1	1	1					-
9 SPL es.f	GI	J				1	1	1					
10 SP6e2	GII	J	11	//		V	1	V					
ASE MOTE: Liability and Damages. Cardinal's fiability and client's exclusive remedy for types: All claims, including those for nonlinence and any other cause whatsoever shall be	e deemed waived unless		t or tort, shall be limited t ind received by Cardinal w	to the amount paid by ithin 30 days after of	y the client for t	the e application	ie .						
nce in no event shall Cardinal be liable for incidental or consequental damages, includ lates or successors arising out of or related to the performance of services hereupder b													
Date: Date: 2-27-22	Received By	/:	1111	//	hone Rei Fax Result	FUIL:	C Yes		Add"	Phone #:			
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Page 33 of 35
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101 East Marland, Hobbs, NM 88 (575) 393-2326 FAX (575) 393-2												2-F3
Company Name: Etech Environmental & Safety Sol	the second s	, inc	3.	T		BI	LL TO		-			ANALYSIS REQUEST
Project Manager: Lance Creashaw				-	0. #:							
Address: P.O. Box 301							leubourn					
			260-88240	At	tn: R .	bbie	e Runne,	3				
Phone #: (575) 396-2378 Fax #: (575)	396-1	429	6 /	Ad	Idress:		_					
Project #: 14966 Project Own	er: R	66	ic Runnels	Ci	ty:			_		-	â	
Project Name: Red Hills Rocycle Facility				St	ate:		Zip:		de	15N	021	
Project #: 14966 Project Own Project Name: Red Hills Rocycle Fastity Project Location: Menbourne Oil Company Sampler Name: Eric Mojica	-			-	one #:	-	_		Chloride	TPH (8015M)	BTEX (8021B)	
Sampler Name: Eric Mojica	-	_	MATRIX	Fa	x #:	DV	SAMPLIN	IC	Ō	Hd	TE	
FOR LAB USE ONLY			MATRIX	T	FRESE	INV.	SAMPLIN	10				
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER Soil Oil Si UDGE	OTHER .	ACID/BASE	OTHER	DATE	TIME				
11 NHIOSurf.	G	1	11		1		2.25.22		V	V	1	
12 NH 101	G	1	1	-	1		7		V	1	V	
13 NH 2es., f.	G	H		+-	-1		->+		1	1	1	
15 NH 3es.f.	G	Н	4	-	× 1		1		V	1	1	
16 NH301	G	t	J	177	J				11	1	\checkmark	
17 EH 105., f.	G	Ĩ	1		J		$\langle $		1	1	1	
18 EHIOI	G	1	J		J		\rightarrow		1	V	1	
19 EH 20 Juf.	G	1	1		4		<		1	1	1	
20 (EH 2 c) *	G		1	i ar tar		miled b	o the amount peid	by the client for		V	1	
taives. All claims including those for negligence and any other cause whateover shall be reviewed in as event shall Cardinal to links for included or conservated domanas, including	e deeme	d weeke	ed unless made in writing ar dan, business interventions,	Inter of	hed by Can	dinal vi		completion of th	e applicat	ble		
filiates or successors arising out of or related to the performance of services hereunder by Relinquished By: Date:	Cardinal,	regar	dless of whether such claim	n is bas	ed upon any	y of the	above stated reas	Phone Re				lo Add'I Phone #:
2.25.22	_		0 010	, ,	110		1/22	Fax Resul	Ŀ			
tri May 19315	De		Tamara	6	en	eg	and the					
Relinquished By: Date:	Re	Leiv	ved By:									
Delivered By: (Circle One) 3.12 C-6 Sampler - UPS - Bus - Other: 2.6c #	5.5 \$113	ĉ	Sample Condit Cool Intact	Si		ECK //miti	ED BY:	Please e	mail r	esults	to pm(@etechenv.com.

ARDINAL LABORATORIE 101 East Marland, Hobbs, NM 8 (575) 393-2326 FAX (575) 393-	8240				3-+3	
Company Name: Etech Environmental & Safety So	utions, Inc.	BILL TO		1	ANALYSIS REQUEST	
Project Manager: Lance Creashaw		P.O. #:				
Address: P.O. Box 301		Company: Mewbourge				
City: Lovington Hobbs State: NM	Zip: 88268 88240	Attn: Robbie Runnels				
Phone #: (575) 396-2378 Fax #: (575)	396-1429	Address:				
Project #:) 4966 Project Own	er: Robbie Runnels	City:				
Project #: 14966 Project Name: Red Hills Recycle Facil Project Location: Mewbourne Oil Compa	ity	State: Zip:	Chloride TPH (8015M)	BTEX (8021B)		
Project Location: Menbourne Oil Compa	• Y	Phone #:	Chloride	8		
Sampler Name: Eric Mojica	J	Fax #:	- S -	X IIII		
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	F			
	S OMF					
Lab I.D. Sample I.D.	R (C)	u u				
Cab I.D. Sample I.D.	E WIND	R BAS				
42207444	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	OTHER : OTHER : OTHER :				
21 SHIOS.F.	G 1 0 15 10 10 0	1 2.25.22	111	1		+
$\begin{array}{c c} \mathcal{Z} & S H I \bullet S_{u}, f. \\ \mathcal{Z} & S H I \bullet I \\ \mathcal{Z} & S H I \bullet I \\ \mathcal{Z} & S H 2 \bullet S_{v}, f. \end{array}$	GII	1 7	1/1	V		1
23 SH205. f.	all 1	1115	VV	1		
24 SH201 25 SH3eSf.	GIJ		1	11		
25 SH 3es.t.	GIV		VV	11		
26 SH 301	GIV	1	JV			
27 WH 105.f.	GIV		11			
28 WHIEL	GI	1	VV	1		
A WH2-Suff.	GIV	1 1 1 7	VV			
LEASE NOTE: Liskilly and Damages, Cardina's liability and client's exclusive remedy for	G V	ct or lorf, shall be limited to the amount onid by the client f	or the			
	e deemed welved unless made in willing a ing wilhout limitation, business interruptions	nd received by Candinal within 30 days after completion of a, loss of use, or loss of profile incurred by client, its subsid	the applicable infes,			
ifiliates or successors arising out of or related to the performance of services itereunder of Relinguished By: Date:	Cardinal, regardless of whether such clain Received By:	n is based upon any of the above stated reasons or other		Yes No	Add'I Phone #:	
Relinquished By: Date: Date: 25-22		Fax Res REMARK			Add'l Fax #:	
Ci Moj 1315	Jamara	Radage				
Relinguished B#: Date:	Received By:					
Time:		Please	email resu	ilts to pm@ete	chenv.com.	
Delivered By: (Circle One) 3.1e C-	0.5c Sample Condi Cool Intact					
Sampler - UPS - Bus - Other: 2.6c	#/13 Aves Aves					



March 02, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/01/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/01/2022	Sampling Date:	03/01/2022
Reported:	03/02/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ 21' (H220792-01)

Chloride, SM4500Cl-B	ride, SM4500Cl-B mg/kg		Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/02/2022	ND	432	108	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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ARDINAL LABORATORIES	
101 East Marland, Hobbs, NM 88240	
(575) 393-2326 FAX (575) 393-2476	

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

Company Name: Etech Environmental	& Safety Solutions, Inc.	BILL TO	ANALYSIS REQUEST	ANALYSIS REQUEST			
Project Manager: Lance Creash.	AW	P.O. #:					
Address: P.O. Box 301		Company: Mewbourne					
Sity: Lovington- Hobbs	State: NM Zip: 88268-8824	O Attn: Robbie Runnels					
City: Lovington- Hobbs Shone #: (575) 396-2378	Fax #: (575) 396-1429	Address:					
Project #: 14966	Project Owner:	City:					
Project #: 14966 Project Name: Red Hills Recycle] Project Location: Mewbourne Oil	acility	State: Zip:	Chloride TPH (8015M) BTEX (8021B)				
roject Location: Mewbay (Ac. 0.1	Concern	Phone #:	Chloride TPH (8015M) STEX (8021B				
Sampler Name: Eric Mejicon		Fax #:					
FOR LAB USE ONLY	MATRI	and the second					
Lab I.D. Sample I.D	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DTHER :					
1 592021	GIV	1 3-1-22	\checkmark				
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filiates or successors arising out of or related to the performance of s	se whetsoever shall be deenved walved unless made in will stal demages, including willout limitation, business interrup services hereunder by Cardinal, reportings of whether such	ag and received by Cardinal within 30 days after completion of the loss, loss of use, or loss of profils incurred by client, its subsidiari	the applicable arise,				
En Mot	Date: Received By: 3-1-22 Time: 50 Date: Received By:	A Aldaher Fax Result REMARKS	lit: 🛛 Yes 🖾 No Add'I Fax #:				
Delivered By: (Circle One) 3.7 Sampler - UPS - Bus - Other:	C-0.52 Sample Co 3.22 #13	dition CHECKED BY:	email results to pm@etechenv.com.				

Rush



March 15, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/10/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 1 - A (H220978-01)

TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	100	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	115 9	% 59.5-14	2						

Sample ID: NW 14 (H220978-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.94	97.2	2.00	9.42	
Toluene*	<0.050	0.050	03/14/2022	ND	1.94	96.9	2.00	9.85	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.94	96.8	2.00	9.98	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	6.01	100	6.00	8.99	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID 104 % 69.9-140

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/14/2022	ND	416	104	400	3.77	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 14 (H220978-02)

TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	95.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 15 (H220978-03)

BTEX 8021B	mg/	'kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.94	97.2	2.00	9.42	
Toluene*	<0.050	0.050	03/14/2022	ND	1.94	96.9	2.00	9.85	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.94	96.8	2.00	9.98	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	6.01	100	6.00	8.99	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/14/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	95.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	109 9	% 59.5-14	2						

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*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 16 (H220978-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/14/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	106 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 17 (H220978-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/14/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	110 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	127 9	59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 18 (H220978-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/14/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	99.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	115 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 14 (H220978-07)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/14/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	105	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	124	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 15 (H220978-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/14/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	106 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	123 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/10/2022	Sampling Date:	03/10/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 16 (H220978-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/14/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					
Surrogate: 1-Chlorooctane	87.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	<i>99.7</i>	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

BILL TO y: Mawbourne bie Runnels Zip: Zip: ERV. SAMPLING	Chloride TPH (8015M)	BTEX (8021B)	IS REQUEST	
Zip:	Chloride TPH (8015M)	BTEX (8021B)		
Zip:	Chloride TPH (8015M)	BTEX (8021B)		
Zip:	Chloride TPH (8015M)	BTEX (8021B)		
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March 22, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/16/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 2 (H221056-01)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg,	′kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					
Surrogate: 1-Chlorooctane	120	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	149	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 3 (H221056-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					
Surrogate: 1-Chlorooctane	121 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	150 \$	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 4 (H221056-03)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					
Surrogate: 1-Chlorooctane	117 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	146 9	% 59.5-14	2						

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 5 (H221056-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	94.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106	% 59.5-14	2						

Cardinal Laboratories

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/16/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 6 (H221056-05)

BTEX 8021B	mg,	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	93.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	103	% 59.5-14	2						

Cardinal Laboratories

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 6 (H221056-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	92.5	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	107 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 7 (H221056-07)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	97.0	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 8 (H221056-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	78.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	83.0	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 17 (H221056-09)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	76.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	81.4	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/16/2022	Sampling Date:	03/16/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 18 (H221056-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	03/21/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					
Surrogate: 1-Chlorooctane	76.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	79.2	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

No	Rush
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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					C	ompa	ny: /	Merbo	urne										
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Fax #: (575) 396-	1429		-		A	ddres	s:		-										
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cause whatsoever shall be deem equented damages, including witho a of services hereunder by Cardina Date: 3 - 16 - 22 Time: Date: Time: 9c $0 - 0$,	ed waive out limits al, regard eceiv	d unless m tion, busine cless of wh red By: red By: Sam Coo	nucle in mus inter ether si unple (willing : muption uch clair MUA	intion	elved by of use, or sed upor	Cardinal 1 loss of p any of B	ettise 30 days at rolls incurred by a above stated	Inr completion of client, its subaid reasons or otherw Phone R Fax Resu REMARK	the applica arise, rese esult: ult: (S:	□ Ye	is 🗆	No	Add'l F	ax #:				
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Wig Bill Wig Bill Wig Bill <tr< td=""><td>State: NM Zip: 88260-88.8440 Fax #: (575) 396-1429 Address: Project Owner: Robins & Connels Gil Connersy State: Gil Connersy Pronoe #: Gil Connersy Proise #: Will Big Big Big Big Big Big Big Big Big Big</td><td>State: NM Zip: 88280-88.840 Fax #: (575) 396-1429 Address: Project Owner: Rdbi: e Runnels gcle Fac: fil: gcle fac: gcle fac:</td></tr<></td></t<>	State: NM Zip: 88260-88340 Fax #: (575) 396-1429 Project Owner: Robbic Runnels gcle Facility State: Zip: Phone #: Fax #: City: State: Zip: Phone #: Fax #: City: State: Zip: Phone #: Fax #: Company: Meuber of a ddress: City: State: Zip: Phone #: Fax #: Date: Time: Project Owner: Robbic Runnels Col I V	State: NM Zip: 86260-88.8440 Fax #: (575) 396-1429 Address: Project Owner: Rdbic Runnels Company: Madress: Project Owner: Rdbic Runnels City: State: State: Zip: Project Owner: Rdbic Runnels City: State: State: Zip: Project Owner: Rdbic Runnels Company: Preserv State: Zip: Project Owner: Rdbic Runnels State: Zip: Project Owner: Rdbic Runnels State: Zip: Project Owner: Rdbic Runnels Project Owner: Rdbic Runnels Project Owner: Rdbic Runnels State: Zip: Project Owner: Rdbic Runnels State: Zip: Project Owner: Rdbic Runnels No. Y Y State: Y Y Y Y Y Y Y Y Y Y	State: NM Zip: 88266-88.040 Fax #: (575) 396-1429 Project Owner: Robbic Runnels Jole Fac: Robbic Runnels Jole Fac: Bits Bits Bits Jole Fac: Bits Jole F	State: NM Zip: 88280-88.8440 Fax #: (575) 396-1429 Address: Project Owner: Robbie Runnels Company: Mathies Runnels: gcle_Fac: g State: Zip: gcle_Fac: g State: Zip: Gil Canpony Fax #: I.D. 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Page

RDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476



March 23, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/18/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 1 @ SURFACE (H221096-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	20800	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	29.8	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	22.6	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	91.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 1 @ 1' (H221096-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	98.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	100 9	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 2 @ SURFACE (H221096-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	26000	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	1040	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	928	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	97.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	129 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 2 @ 1' (H221096-04)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	18.4	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	18.2	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	107 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	108 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager


Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 3 @ SURFACE (H221096-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32800	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	4700	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	1260	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	101 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	255 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 3 @ 8' (H221096-06)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	93.1 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.0 \$	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 4 @ SURFACE (H221096-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	54000	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	232	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	104	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	97.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	121	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 4 @ 4' (H221096-08)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/21/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	90.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.8	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 5 @ SURFACE (H221096-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/23/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/23/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/23/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1330	16.0	03/21/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	68.4	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	27.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	101 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 5 @ 8' (H221096-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/23/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/23/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/23/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/23/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	03/21/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	109 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	% 59.5-14	2						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

NoRush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 5/18/2022 3:43:51 PM

Company Name		al & Safety Solutio	_	nc.		-		T			BI	LL TO		_				ANAL	YSIS	RE	QUE	ST			
	r: Lance Crenst	naw						-	P.O. 1	_															
). Box 301					-		C	Company: Mewbourne				ine												
	1140.4				8.00	82	740	Attn: Robbie Runnels																	
Phone #: (57	5) 396-2378	Fax #: (575) 396	-14	29	5		1	A	ddre	955	:														
Project #: 141	166	Project Owner:	Not	bit	e K	AA	els	C	ity:						=	m									
Project #: 14966 Project Owner: Robbie Runnels Project Name: Red Hills Recycle Facility Project Location: Mewborne Oil Company Sampler Name: Epic Mojica			S	tate	:		Zip:		de l	15N	0216														
Project Location	n: Mewberrae ()	1 Company	1					P	hon	e #:	:			Chloride	TPH (8015M)	BTEX (8021B)									
Sampler Name:	Eric Mojica		-	-	_			F	ax #	-			_	5	H	E E									
FOR LAB USE ONLY					-	MAT	RIX	T	PR	RES	ERV.	SAMPLI	ING		F	io i									
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9	DSP Sesurf.		7	4	+	1		+	+	V				V	V	V	-						-+	-+-	
LEASE NOTE: Liability an	DSTJES nd Demages. Cardinal's liability and clien	t's exclusive remody for any o	-7 Jaim a	rising	shelter	V	in contra	act or t	ort, she	I bel	limited to	the amount pai	id by the client for	The		IV		1			_				•
ervice. In no event shall C	ng those for negligence and any other ci ardinal be liable for incidental or conseq	uentel demages, including wi	thout li	nitutio	n, busie	en inte	muption	n, loss	of use,	, or lo	es of pro	the incurred by a	client, its subsidie	ries,	bie										
Relinguished B	ng out of or related to the performance o V:	f services hereunder by Card Date:			d By		uch cla	im is b	esed u	pon a	ny of the	above stated re	Phone Re		O Ye	s 🛛	No	Add'l F	hone #	k:					
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Revision 1.0

Page 188 of 206



March 24, 2022

LANCE CRENSHAW Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/21/22 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 6 @ SURFACE (H221108-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	93600	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	71.4	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	43.3	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	115 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	123 9	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 6 @ 10' (H221108-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS∖					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	117 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 7 @ SURFACE (H221108-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	26000	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	689	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	456	10.0	03/22/2022	ND					
Surrogate: 1-Chlorooctane	111 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	144	% 59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 7 @ 14' (H221108-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					
Surrogate: 1-Chlorooctane	113 %	66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 %	59.5-14	2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 8 @ SURFACE (H221108-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	obenzene (PID 104 % 69.9-14		0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	78400	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	11.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					
Surrogate: 1-Chlorooctane	121 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	urrogate: 1-Chlorooctadecane 130 % 59.5-142		2						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 8 @ 8' (H221108-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					
Surrogate: 1-Chlorooctane	113 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120 % 59.5-142		2						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 9 @ SURFACE (H221108-07)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\								
Analyte	Analyte Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier			
Benzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	1.85				
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489				
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90				
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61				
Total BTEX	<0.300	0.300	03/22/2022	ND								
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0									
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier			
Chloride	49600	16.0	03/22/2022	ND	432	108	400	0.00				
TPH 8015M	mg,	/kg	Analyze	d By: MS								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier			
GRO C6-C10*	<10.0	10.0	03/23/2022	ND	202	101	200	5.65				
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78				
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND								
Surrogate: 1-Chlorooctane	125	% 66.9-13	6									
Surrogate: 1-Chlorooctadecane 134 % 59.5-142		2										

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW 2617 W MARLAND HOBBS NM, 88240 Fax To:

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 9 @ 8' (H221108-08)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/24/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/24/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/24/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/24/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 % 69.9-140		0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/22/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					
Surrogate: 1-Chlorooctane	111 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane 118 % 59.5-142		2							

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Nam	e: Etech Environmental & Safety So	lutions	s, In	C.				BILL TO ANALYSIS REQUEST														
Project Manage	Br: Lance Creashaw						P	P.O. #:					1		T	T				1	1	
Address: P.O. Box 301 City: Lowington Hollo State: NM Zip: 88260* 88240 Phone #: (575) 396-2378 Fax #: (575) 396-1429										1												
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roject Namo:	P 1 p F		707	e / VAA	e/s			ity:				-		(1)	â							
roject Location	Red Hills Recycle Facility n: Mewbourne Oil Company		-					tate:	-	Z	üp:		-Ide	(8015M)	(8021B)							
Toject Locatio	"I lewbourne Vil Company			1)+0			1-	hone	#:				Chloride	(80	X (8							
Ampler Name:	Eric Mojien	-	-		MAT	NIN	Fa	Fax #: 0				ō	TPH	BTEX								
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	OTHER :		ICE HOOL		DATE	TIME										
1	DSPGeSuff.	G	1		1				1	_	3-21-22		1	1	1							
2	DSPbeSuff. DSPbelo	G	1		1	-			1	1	3		~	1	1							
3	DSP7eSuit.	G	1		1	T			1	T	\rangle		~	V	V							
4	DSP 70 14	G	1		1				1	1			5	1	1							
5	DSP8es.f.	G	1	_	1				1		\rangle		~	1	1							
6	DSP8e8	G	1	_	1	1			V				~	1	1							
7	DSP90 Suff.	G	L	_	1					L	\rangle		~	1	1							
8	DSP9e8'	G			1	_		1	V	L	/		5	1	V							
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rees. All claims includi	nd Damages, Cardinal's liability and client's exclusive remedy fo ing those for negligence and any other cause whistoever shall b	e deemed	i weive	id unless m	active ins	writing a	nd reci	eived by I	Cardinal	within	n 30 days after o	completion of the	applicate	ła								
Nes or successors arisi	ardinal ice lisble for incidental or consequental demages, includ ing out of or related to the performance of services hereunder by													_								
linguished B En Ma linguished B	F 1450	Re	ceiv	ved By:	at	a	U	U	da		11	Phone Res Fax Result REMARKS	:	C Ye			Add'l F Add'l F	hone #	¥:			
	Time: : (Circle One) $3.8c$ C- - Bus - Other: $3.3c$	0.5 #1		Coo	Yes	Condi	35			itiał	BY:	^D lease er	nail re	esults	to pr	n@ete	chenv	.com.				

No Rush

199 of 206

ARDINAL LABORATORIES

Appendix G Regulatory Correspondence

From:	Ben Arguijo
То:	"ocd.enviro@state.nm.us"
Cc:	<u>"ocd.environmental@state.nm.us"; Lance Crenshaw; "Robbie Runnels"; "Connor Walker"; "Hamlet, Robert, EMNRD"</u>
Subject:	RE: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request
Date:	Thursday, January 27, 2022 3:15:00 PM
Attachments:	image001.png

Dear NMOCD Environmental Bureau,

I am writing to check on the status of the extension request below regarding the work plan for the Red Hills Recycle Pond Facility release (nAPP2124632147). On behalf of Mewbourne Oil Company, I would also like to take this opportunity to request an additional extension until March 31, 2022, to allow Etech time to complete the site assessment, delineation of the release, and to devise an acceptable remediation proposal.

If you have any questions or need any additional information, please do not hesitate to contact me or Lance Crenshaw (lance@etechenv.com).

Thank you for your time and consideration.

Respectfully, Ben J. Arguijo

Ben J. Arguijo

Project Manager

ETECH ______

2507 79th St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

From: Ben Arguijo
Sent: Wednesday, December 22, 2021 5:08 PM
To: 'ocd.enviro@state.nm.us' <ocd.enviro@state.nm.us>
Cc: 'ocd.environmental@state.nm.us' <ocd.environmental@state.nm.us>; Lance Crenshaw
<lance@etechenv.com>; 'Robbie Runnels' <rrunnels@mewbourne.com>
Subject: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request

Dear NMOCD Environmental Bureau,

Mewbourne Oil Company (Mewbourne) contracted Etech Environmental & Safety Solutions, Inc. (Etech), on November 29, 2021, to assume remediation activities for the release known as the Red Hills Recycle Pond Facility (NMOCD Incident #nAPP2124632147) located in Lea County. Pursuant to NMOCD regulations, a work plan or closure report was due for the release on November 28, 2021.

An initial site assessment was performed by a third-party environmental contractor that is no longer affiliated with the site. Based on a review of the field data from that site assessment, the vertical extent of chloride contamination was adequately defined, but additional delineation is required to determine both the horizontal and vertical extent of TPH, BTEX, and chloride.

Due to our current workload and fluctuations in staffing levels as people have taken leave from work to spend time with loved ones this holiday season, Etech has not yet had an opportunity to conduct a complete delineation event at the site. In consideration of this, Etech, on behalf of Mewbourne, would like to request an extension until January 31, 2022, in order to allow us time to conduct a proper site assessment, fully delineate the release, and devise an appropriate remediation strategy to advance the site to an NMOCD-approved closure.

If you have any questions or need any additional information, please do not hesitate to contact me by phone or email.

Thank you for your time and consideration.

Respectfully, Ben J. Arguijo

Ben J. Arguijo Project Manager

etech

2507 79th St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

From:	Hamlet, Robert, EMNRD
То:	Ben Arguijo
Cc:	Lance Crenshaw; Robbie Runnels; Connor Walker; Bratcher, Mike, EMNRD; Hensley, Chad, EMNRD; Velez, Nelson, EMNRD; Nobui, Jennifer, EMNRD
Subject:	(Extension Approval) RE: nAPP2124632147 - Red Hills Recycle Pond Facility
Date:	Friday, January 28, 2022 10:42:34 AM
Attachments:	image003.png

RE: Incident #NAPP2124632147

Ben,

Your request for an extension to March 31st, 2022 is approved.

Robert Hamlet • Environmental Specialist - Advanced Environmental Bureau EMNRD - Oil Conservation Division 811 S. First Street | Artesia, NM 88210 575.909.0302 | robert.hamlet@state.nm.us http://www.emnrd.state.nm.us/OCD/



From: Ben Arguijo <bena@etechenv.com>

Sent: Thursday, January 27, 2022 2:17 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>

Cc: ocd.environmental@state.nm.us; Lance Crenshaw <lance@etechenv.com>; Robbie Runnels <rrunnels@mewbourne.com>; Connor Walker <cwalker@mewbourne.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>

Subject: [EXTERNAL] RE: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Dear NMOCD Environmental Bureau,

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Thank you for your time and consideration.

Respectfully, Ben J. Arguijo

Ben J. Arguijo

Project Manager



2507 79th St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

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Sent: Wednesday, December 22, 2021 5:08 PM
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Respectfully, Ben J. Arguijo

Ben J. Arguijo

Project Manager

Environmental & Safety Solutions

2507 79th St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

Total Control Panel

To: <u>bena@etechenv.com</u> From: robert.hamlet@state.nm.us Message Score: 50 My Spam Blocking Level: High

<u>Block</u> this sender <u>Block</u> state.nm.us High (60): Pass Medium (75): Pass <u>Login</u>

Low (90): Pass

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District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	99907
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Crea By	ated	Condition	Condition Date
jno	bui	Remediation Plan Approved with Conditions; liner installation approved. Deferral Request Approved. Going forward, please collect soil samples between 4 ft and total depth, to determine what is left in place and below the liner.	5/18/2022

Action 99907